

Appl. No. 10/829,070
Reply to Office action of January 11, 2005

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Claim 1. (Amended) An optical light guide apparatus comprising:

a connector;

a bundle of optical fibers positioned within said connector; and

an epoxy joining said optical fibers together,

wherein said bundle of optical fibers has a polished distal end at one end of said connector, and

wherein the ratio of fiber size to binder particulate size of said epoxy is sufficient to maintain the integrity of said bundle of optical fibers during polishing of said distal end;

wherein the ratio of fiber size to binder particulate size of said epoxy is between approximately 25 and 50.

Claims 2 – 3 (Canceled).

Claim 4. (Amended) The apparatus in claim 1, wherein said connector is adapted to extend through an opening in a surface of a device, such that said distal end of said bundle of optical fibers one of is recessed in, is substantially flush with, or extends from a surface of said device through which said connector extends.

Claim 5. (Original) The apparatus in claim 1, further comprising a protective sheath surrounding a portion of said bundle of fibers that extend outward from said connector.

Claim 6. (Canceled).

Claim 7. (Original) The apparatus in claim 1, wherein said optical fibers comprise one of a glass and quartz.

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Claims 8 – 14 (Canceled).

Claim 15. (Amended) A method of forming an optical light guide apparatus, said method comprising:

bonding a bundle of optical fibers together using an epoxy;

polishing a distal end of said bundle of optical fibers to create an optical aperture, wherein the ratio of fiber size to binder particulate size of said epoxy used in said bonding process is sufficient to maintain the integrity of said bundle of optical fibers during said polishing of said distal end; and

positioning said bundle of optical fibers into a protective sheath and a connector,

wherein said connector is positioned at one end of said protective sheath, and

wherein said distal end of said bundle of optical fibers is positioned at an end of said connector;

wherein the ratio of fiber size to binder particulate size of said epoxy used in said bonding process is between approximately 25 and 50.

Claims 16 – 17 (Canceled).

Claim 18. (Amended) The method in claim 15, further comprising extending said connector through an opening in a surface of a device, such that said distal end of said bundle of optical fibers one of is recessed in, is substantially flush with, or extends from a surface of said device through which said connector extends.

Claim 19 (Original) The method in claim 18, further comprising positioning, on said connector, a threaded jam nut adapted to engage threads in said opening.

Claim 20. (Original) The method in claim 18, further comprising positioning a seal on said connector, wherein said seal seals said opening.

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